Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia. Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee/Facility Name:	DuPont – Spruance Plant
Facility Location:	5401 Jefferson Davis Highway Richmond, Virginia
Registration Number:	50397
Permit Number:	PRO50397

July 14, 2004
Original Effective Date

February 6, 2006
Amendment Date (40 CFR 63 Subpart DDDDD added)

July 14, 2009
Expiration Date

_____
Director, Department of Environmental Quality

_____
Signature Date

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I. Facility Information

Permittee
DuPont – Spruance Plant
5401 Jefferson Davis Highway
Richmond, Virginia 23234

Responsible Official
Rick L. Hodge
Plant Manager

Facility
DuPont – Spruance Plant
5401 Jefferson Davis Highway
Richmond, Virginia 23234

Contact Person
Joe G. Loschiavo
Environmental Associate
804-383-3911

AFS Identification Number: 51-053-0001

Facility Description: SIC Code 2824 – The facility manufactures synthetic resins, fibers and sheet products, polyamide resins and spunbonded/non-woven fabric through a variety of processes.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Nomex® Process Area							
NOE01	NOS02	Polymerization and Deaeration process vessels	39.469 Nomex® polymerization units/hr	DuPont designed solvent recovery system including scrubber, extraction and distillation. This system is in operation over the entire Nomex® process area. (Solvent Recovery)	NOC01 [a]	VOC/HAP	August 8, 2003
NOE02	NOS01	Dissolver	1800 Batches/yr	Industrial Sheet & Mechanical Inc. high velocity spray scrubber (Nomex® DMAC Scrubber)	NOC03	VOC	August 8, 2003
NOE3-10	NOS01	Eight (8) Misc. Process Tanks	< 4,217 gal each	N/A	N/A	N/A	August 8, 2003
NOE11	NOS05	RP larger room	N/A	N/A	N/A	N/A	August 8, 2003
NOE12-13	NOS06	Two (2) Basement filter presses	2000 lbs/hr polymer each	N/A	N/A	N/A	August 8, 2003
NOE14	NOS07	Waste Dryer	1250 lbs/hr fiber	N/A	N/A	N/A	August 8, 2003
NOE15-18	NOS01	Four (4) Spinning Machines	2.93 tons/hr fiber	Nomex® DMAC Scrubber	NOC03	VOC	August 8, 2003
NOE19-23	NOS01	Five (5) Wash/draw line	1.35 tons/hr fiber each	Nomex® DMAC Scrubber	NOC03	VOC	August 8, 2003
NOE24	NOS08	Crimpers	6.75 tons/hr fiber	N/A	N/A	N/A	August 8, 2003

NOE25	N/A	Finish Application	6.75 tons/hr fiber	N/A	N/A	N/A	August 8, 2003
NOE26	N/A	Process Tanks	6.75 tons/hr fiber	N/A	N/A	N/A	August 8, 2003
NOE27-34	NOS01	Eight (8) Fibridation Machines	2,350 lbs/hr polymer total	Nomex® DMAC Scrubber	NOC03	VOC	August 8, 2003
NOE35	NOS01	3DP Press	2,350 lbs/hr polymer total	Nomex® DMAC Scrubber	NOC03	VOC	August 8, 2003
NOE36-39	NOS01	Four (4) Drum Filters	1.5 tons/hr paper	N/A	N/A	N/A	August 8, 2003
NOE41	NOS11	Paper Machine	1.5 tons/hr paper	N/A	N/A	N/A	August 8, 2003
NOE42-44	N/A	Three (3) Calenders	1.5 tons/hr paper	N/A	N/A	N/A	August 8, 2003
NOE45	NOS01	Slurry process tanks	1.5 tons/hr paper	N/A	N/A	N/A	August 8, 2003
NOE46	NOS08	Fiber Staple Dryer	1.5 tons/hr paper	N/A	N/A	N/A	August 8, 2003
NOE47	NOS09	Fiber Second Floor Room	N/A	N/A	N/A	N/A	August 8, 2003
NOE48	NOS10	Fiber Parts Cleaning Operation	N/A	N/A	N/A	N/A	August 8, 2003
NOE49	NOS12	Extraction/distillation	1172.49 DMAC Recovery Units/hr	DuPont Chloroform Constant Level Scrubber/Quench tank (Nomex® Chloroform Scrubber)	NOC02	VOC/HAP	August 8, 2003
NOE50A	NOS12	Stripper	1172.49 DMAC Recovery Units/hr	Nomex® Chloroform Scrubber	NOC02	VOC/HAP	August 8, 2003
NOE51	NOS12	Quench process tank	1172.49 DMAC Recovery Units/hr	N/A	N/A	N/A	August 8, 2003
NOE52	NOS12	Misc. process vessels	1172.49 DMAC Recovery Units/hr	N/A	N/A	N/A	August 8, 2003
NOE101	NOS01	Spin Position SM5-1	100 lbs/hr virgin polymer	Nomex® DMAC Scrubber	NOC03	VOC	August 8, 2003
NOE102	NOS01	Spin Position SM5-2	100 lbs/hr virgin polymer	Nomex® DMAC Scrubber	NOC03	VOC	August 8, 2003
NOE103	NOS01	SM5 Wash/Draw Line	200 lbs/hr virgin	Nomex® DMAC	NOC03	VOC	August 8, 2003

			polymer	Scrubber			
NOE104	NOS01	SM5 Dryer/Crystallizer	200 lbs/hr virgin polymer	N/A	N/A	N/A	August 8, 2003
NOE105	NOS01	Finish Application	275 lbs/hr virgin polymer	N/A	N/A	N/A	August 8, 2003
NOE106	NOS01	SM5 Packaging	200 lbs/hr virgin polymer	N/A	N/A	N/A	August 8, 2003
NOE110	NOS01	SM1 Nitrogen Aspiration System Purge	2.93 tons/hr fiber	Nomex® DMAC Scrubber	NOC03	VOC	August 8, 2003
NOE111	NOS01	SM2-4 Nitrogen Aspiration System Purge	2.93 tons/hr fiber	Nomex® DMAC Scrubber	NOC03	VOC	August 8, 2003
NOT01	NOS13	Polymer/solvent OST tank	40,000 gal	N/A	N/A	N/A	August 8, 2003
NOT02	NOS14	Polymer/solvent PMV tank	23,960 gal	N/A	N/A	N/A	August 8, 2003
NOT03-04	NOS03	Two (2) ICL storage tanks	48,000 gal each	N/A	N/A	N/A	August 8, 2003
NOT05-06	NOS04	Two (2) MPD storage tanks	27,100 gal east 18,200 gal west	N/A	N/A	N/A	August 8, 2003
NOT07-08	NOS19 -20	Two (2) DMAC combined feed storage tanks	200,000 gal each	N/A	N/A	N/A	August 8, 2003
NOT09-12	NOS15 -18	Four (4) DMAC storage tanks	38,000 gal each	N/A	N/A	N/A	August 8, 2003
NOT13	NOS12	Chloroform storage tank	68,000 gal	Nomex® Chloroform Scrubber	NOC02	VOC/HAP	August 8, 2003
NOT14	N/A	Spin tank	27,471 gal	N/A	N/A	N/A	August 8, 2003
NOT15	N/A	Deaerator supply tank	12,325 gal	N/A	N/A	N/A	August 8, 2003
NOT16	N/A	Misc. storage tanks		N/A	N/A	N/A	August 8, 2003
NOT20	NOS12	Recycle tank		Nomex® Chloroform Scrubber	NOC02	VOC/HAP	August 8, 2003
NOT21	NOS12	Start-up tank		Nomex® Chloroform Scrubber	NOC02	VOC/HAP	August 8, 2003
NOT22	NOS12	Crud Collection tank		Nomex® Chloroform Scrubber	NOC02	VOC/HAP	August 8, 2003
NOT23	NOS12	Pollution Abatement tank		Nomex® Chloroform Scrubber	NOC02	VOC/HAP	August 8, 2003

Kevlar® Process Area							
SEE01	SES04	Polymerization/Mixer	25.5 Kevlar® Polymerization Units/hr	DuPont designed solvent recovery system including scrubber, extraction and distillation. This system is in operation over the entire Kevlar® process area.	SCD06	VOC/HAP	January 16, 2002
SEE02	SES04	Milling	Same as SEE01	N/A	N/A	N/A	January 16, 2002
SEE03	SES04	Polymer Washing	Same as SEE01	N/A	N/A	N/A	January 16, 2002
SEE04	SES04	Polymer Dryer	Same as SEE01	N/A	N/A	N/A	January 16, 2002
SEE11(A)	SES05, 12, 13, 15, 21-23	Plant 2 Mixers	12.64 Kevlar® Solution Prep Units/hr	N/A	N/A	N/A	January 16, 2002
SEE11(B)	SES05, 12, 13, 15, 21-23	Plant 3 Mixers	Same as SEE11A	N/A	N/A	N/A	January 16, 2002
SEE12(A)	SES05, 12, 13, 15, 21-23	Plant 2 Solution/Blending	Same as SEE11A	N/A	N/A	N/A	January 16, 2002
SEE12(B)	SES05, 12, 13, 15, 21-23	Plant 3 Solution/Blending	Same as SEE11A	N/A	N/A	N/A	January 16, 2002
SEE21	SES08-11, 14, 16-20	Spinning Machine 6	56.23 Kevlar® Spinning Units/hr	N/A	N/A	N/A	January 16, 2002
SEE22	SES08-11, 14, 16-20	Spinning Machine 7	Same as SEE21	N/A	N/A	N/A	January 16, 2002

SEE23	SES08-11, 14, 16-20	Spinning Machine 31	Same as SEE21	N/A	N/A	N/A	January 16, 2002
SEE24	SES08-11, 14, 16-20	Spinning Machine 32	Same as SEE21	N/A	N/A	N/A	January 16, 2002
SEE25	SES08-11, 14, 16-20	Spinning Machine RD	Same as SEE21	N/A	N/A	N/A	January 16, 2002
SEE26	SES08-11, 14, 16-20	Spinning Machine LD1	Same as SEE21	N/A	N/A	N/A	January 16, 2002
SEE27	SES08-11, 14, 16-20	Spinning Machine LD2	Same as SEE21	N/A	N/A	N/A	January 16, 2002
SEE31	SES01	Extraction Column	270 Kevlar® Solvent Recovery Units/hr	DuPont designed scrubber	SCD01	VOC/HAP	January 16, 2002
SEE32	SES01	Stripper Column	Same as SEE31	DuPont designed scrubber	SCD01	VOC/HAP	January 16, 2002
SEE33	SES27	Distillation Column	Same as SEE31	N/A	N/A	N/A	January 16, 2002
SEE34	SES01	Chloroform Column	Same as SEE31	DuPont designed scrubber	SCD01	VOC/HAP	January 16, 2002
SEE35	SES27	Sulfuric Acid tank	Same as SEE31	N/A	N/A	N/A	January 16, 2002
SET01	SES01	Chloroform storage tank	126,060 Kevlar® Storage Units (KSU)	DuPont designed scrubber	SCD01	VOC/HAP	January 16, 2002
SET02	SES28	PPD storage tank	68,760 KSU	DuPont designed scrubber	SCD04	VOC/HAP	January 16, 2002
SET03	SES30	TCL – North storage tank	156,620 KSU	DuPont designed scrubber	SCD02	VOC	January 16, 2002
SET04	SES31	TCL – South storage tank	85,950 KSU	DuPont designed scrubber	SCD03	VOC	January 16, 2002
SET05	N/A	NMP storage tank	70,670 KSU	N/A	N/A	N/A	January 16, 2002
SET06	N/A	Premix Feed tank	1031 KSU	N/A	N/A	N/A	January 16, 2002

SET07	N/A	Premix Reclaim tank	17,190 KSU	N/A	N/A	N/A	January 16, 2002
SET08	N/A	Filter Feed tank	10,505 KSU	N/A	N/A	N/A	January 16, 2002
SET09	N/A	Mother Liquor Receiver tank	2,674 KSU	N/A	N/A	N/A	January 16, 2002
SET10	N/A	Mother Liquor tank	4,966 KSU	N/A	N/A	N/A	January 16, 2002
SET11	N/A	Wash Receiver No. 1 tank	1,910 KSU	N/A	N/A	N/A	January 16, 2002
SET12	N/A	Weak Feed tank	567,270 KSU	N/A	N/A	N/A	January 16, 2002
SET13	N/A	Intercept tank	6,972 KSU	N/A	N/A	N/A	January 16, 2002
SET14	N/A	Solvent Premix tank	27,695 KSU	N/A	N/A	N/A	January 16, 2002
SET15	N/A	Premix Mix tank	27,695 KSU	N/A	N/A	N/A	January 16, 2002
SET16	N/A	Premix storage tank	209,145 KSU	N/A	N/A	N/A	January 16, 2002
SET17	SES29	PPD storage tank	124,150 KSU	DuPont designed scrubber	SCD05	VOC/HAP	January 16, 2002
SEE36	N/A	Cooling Tower Cell #1	2600 Kevlar® Cooling Units	N/A	N/A	N/A	January 16, 2002
SEE37	N/A	Cooling Tower Cell #2	Same as SEE36	N/A	N/A	N/A	January 16, 2002
SEE38	N/A	Cooling Tower Cell #3	Same as SEE36	N/A	N/A	N/A	January 16, 2002
SEE39	N/A	PPD Unloading Station #1	180,510 PPD Loading Units	N/A	N/A	N/A	January 16, 2002
SEE40	N/A	PPD Unloading Station #2	Same as SEE39	N/A	N/A	N/A	January 16, 2002
SEE41	N/A	S.M. Yarn Processor No. 5	3.75 Kevlar® Spinning Units/hr	N/A	N/A	N/A	July 8, 1987
Tyvek® Process Area							
TYE01	TYS04	Line 1 T-10 Coater/Finishing Line	2 tons/hr Tyvek®	N/A	N/A	N/A	N/A
TYE02	TYS04	Line 1 T-10 Coater/Finishing Line	2 tons/hr Tyvek®	N/A	N/A	N/A	N/A
TYE03	TYS04	T-12 Coater/Finishing Line	1.6 tons/hr Tyvek®	N/A	N/A	N/A	N/A
TYE04	TYS03	L1 – Mix tank	2 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE05-08	TYS03	L1 – Mixers (4)	2 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE09	TYS03	L1 – Spin Cell	2 tons/hr Tyvek®	L1-2 Carbon	TYC07	Spin Agent	N/A

				Adsorption System			
TYE10	TYS03	L1 – Blow Down Cell	2 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE11	TYS03	L2 – Mix tank	2 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE12-13	TYS03	L2 – Mixers (2)	2 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE14	TYS03	L2 – Spin Cell	2 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE15	TYS03	L2 – Blow Down Cell	2 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE16	TYS01	L4 – Spin Solution Mixer	3.5 tons/hr Tyvek®	L4 Condenser L4 Absorption Sys. L4 Thermal Oxidizer (controls TYE16-20)	TYC01 TYC02 TYC03	VOC	April 30, 1997
TYE17	TYS01	L4 – Spin Cell	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	April 30, 1997
TYE18	TYS01	L4 – Nitrogen Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	April 30, 1997
TYE19	TYS01	L4 – Absorbant Carry-Over	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	April 30, 1997
TYE20	TYS01	L4 – Air Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	April 30, 1997
TYE21	TYS02	L7 – Spin Solution Mixer	3.5 tons/hr Tyvek®	L7 Condenser L7 Absorption Sys. L7 Thermal Oxidizer (controls TYE21-25)	TYC04 TYC05 TYC06	VOC	April 30, 1997
TYE22	TYS02	L7 – Spin Cell	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	April 30, 1997
TYE23	TYS02	L7 – Nitrogen Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	April 30, 1997
TYE24	TYS02	L7 – Absorbant Carry-Over	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	April 30, 1997
TYE25	TYS02	L7 – Air Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	April 30, 1997

TYT01-02	TYS07	L4 Spin Agent Storage tanks (2)	15,000 gal each	N/A	N/A	N/A	April 30, 1997
TYT03	TYS07	L7 Spin Agent Storage tank	6,250 gal	N/A	N/A	N/A	April 30, 1997
TYT04-08	TYS07	L1-2 Spin Agent Storage tanks (5)	1 – 25,000 gal 4 – 10,800 gal	N/A	N/A	N/A	N/A
TYT09	TYS07	Misc. Storage tanks	<19,815 gal	N/A	N/A	N/A	N/A
Zytel® Process Area							
ZYE01	ZYS01	Primary Salt Reactor	42.25 Zytel® Polymerization units	N/A	N/A	N/A	N/A
ZYE02	ZYS02 -05	Commercial Line 1 including: Additive extruder, extruder feed hopper, melt tank, separators, dies, cooler/dryer, mixer and distearate dump station	7.0 Zytel® Polymerization units	Fabric filter	ZYC01	Particulate	N/A
ZYE03	ZYS03 , 05-06	Commercial Line 2 including: separators, dies and cooler/screener	7.0 Zytel® Polymerization units	Fabric filter	ZYC01	Particulate	N/A
ZYE04	ZYS02 , 07-09	Commercial Line 3 including: finishers, dies, cooler/screener and finishing	1.25 Zytel® Polymerization units	Fabric filter	ZYC01	Particulate	N/A
ZYE05	ZYS10 -11	Commercial Line 4 including: finishers, dies, cooler/screener and finishing	1.25 Zytel® Polymerization units	Fabric filter	ZYC01	Particulate	N/A
ZYE06	ZYS15 -22	Product Storage Silos (8)	84.5 Zytel® Product units	Fabric filter	ZYC01	Particulate	N/A
ZYE07	ZYS23 -26	Packaging: truck, railcar, sealand container, box and bag loading	84.5 Zytel® Product units	Fabric filter	ZYC01	Particulate	N/A
ZYE08-10	N/A	Dowtherm Vaporizers (3)	14.5 MMBtu/hr heat input each	N/A	N/A	N/A	N/A
ZYE11	N/A	Dowtherm Vaporizer VAP-3R	20 MMBtu/hr	N/A	N/A	N/A	N/A
ZYE13	N/A	TPA Solids Unloading	25,000 Zytel®	N/A	N/A	N/A	N/A

			TPA Solids Unloading Units				
ZYT01	N/A	Diamine Storage tank	2,500,000 Zytel® Diamine Storage Units	N/A	N/A	N/A	N/A
ZYT02-07	N/A	Dowtherm Storage tanks (6)	2 – 1,486 gal 2 – 983 gal 1 – 3,972 gal 1 – 3,600 gal	N/A	N/A	N/A	N/A
ZYT08	N/A	MPMD Storage Tank	25,000 Zytel® MPMD Storage Units	N/A	N/A	N/A	N/A
ZYT09-10	N/A	Salt Make-Up & Storage	2 @ 450,000 Zytel® Salt Make-Up & Storage Units	N/A	N/A	N/A	N/A

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
Note: a: **Not a control device as the solvent recovery is inherent process equipment.**

III. Nomex® Process Area

A. Limitations

1. Volatile Organic Compound emissions from the following equipment shall be controlled by the Nomex® DMAC Scrubber (NOC 03):

   SM5 Spinning Line (NOE 101-103)
   3DP gravity filter press (NOE 35)
   Dissolving tank (NOE 02)
   Spinning machines #1-#4 (NOE 15-18) (1st Floor Exhaust)
   Fibridation units (NOE 027-034)
   SM1-4 Nitrogen Aspiration system purge (NOE 110 and 111)
   Wash/Draw Lines #1-5 (NOE 19-23)

   NOE 110 and NOE 111 shall be connected to NOC 03. The scrubber shall be operated such that it will maintain a VOC reduction efficiency of at least 50%.
   (9 VAC 5-80-110, Condition #E.10 of 5/30/96 RACT Agreement and Condition #3 of 8/8/2003 Permit)

2. VOC emissions from the Nomex® area shall be controlled by the following work practices:

   a. Operation of spin cells at the minimum pressure necessary to prevent the introduction of oxygen,

   b. Installation of covers on storage tanks and tubs to reduce evaporative losses,

   c. Minimum feasible Wash/Draw bath temperatures, and

   d. Other reasonable measures to reduce controlled and uncontrolled emissions.

   Compliance with #2.a. shall be determined as stated in Condition #17.
   (9 VAC 5-80-110 and Condition #4 of 8/8/2003 Permit)

3. Volatile Organic Compound emissions from the following equipment shall be controlled by the Nomex® Chloroform Scrubber (NOC 02):

   Extraction Column (NOE 49A)
   Two Distillation Columns (NOE 49B and 49C)
   Stripper Column (NOE 50A)
   Chloroform storage tank (NOT 13)
   Recycle Tank (NOT 20)
   Start-up Tank (NOT 21)
   Crud Collection Tank (NOT 22)
   Pollution Abatement Tank (NOT 23)

   The scrubber shall be operated such that it will maintain a VOC reduction efficiency of at least 95%.
   (9 VAC 5-80-110 and Condition #5 of 8/8/2003 Permit)

4. Fugitive VOC emissions from the solvent recovery area equipment in chloroform service shall be controlled by a leak detection and repair (LDAR) program in accordance with 40 CFR 60 Subpart VV, with the exception of the reporting requirements of 60.487. The covered equipment shall include all chloroform-containing vessels, equipment and lines that would be regulated by 40 CFR 60 Subpart VV if the facility were subject to Subpart VV. Note: The facility is not actually subject to 40 CFR 60 Subpart VV.

   (9 VAC 5-80-110 and Condition #6 of 8/8/2003 Permit)

5. Volatile Organic Compound (VOC) emissions from Nomex® spinning and solvent recovery operations shall not exceed 9.65 pounds of VOC emissions per thousand pounds of solvent feed, calculated in accordance with the equations in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) and calculated monthly on a six month rolling average basis.

   (9 VAC 5-80-110, Condition #E.11 of 1996 RACT Agreement and Condition #8 of 8/8/2003 Permit)

6. Volatile Organic Compound emissions and process operating parameters from the operation of the following equipment, prior to the Nomex® DMAC scrubber (NOC 03), shall not exceed the limitations specified below:

	VOC lbs/hr	VOC tons/yr
Combined Spinning Machines #1-4 (NOE 15-18) (as captured by the 1st floor spinning exhaust system)	34.1	124.4

	Average Operating Temperature	Average Nitrogen Flow
SM1 Nitrogen Aspiration System Purge (NOE 110)	5 degrees Celsius	900 lbs/hr
SM2-SM4 Nitrogen Aspiration System Purge (NOE 111)	5 degrees Celsius	1700 lbs/hr

   Compliance with the spinning machine (NOE 15-18) emission limits shall be determined in accordance with Conditions #2.a, #14 and #17. The average operating temperatures and nitrogen flows shall be calculated monthly as the average of each consecutive 12 month period. Compliance with the Nitrogen aspiration system purge (NOE 110 and 111) operating limits shall be determined in accordance with Condition #13.
   (9 VAC 5-80-110 and Condition #10 of 8/8/2003 Permit)

7. Emissions from the operation of the chloroform extraction system shall not exceed the limitations specified below:

   a. 3.5 lbs VOC (chloroform)/hr (average hourly emissions calculated monthly on a 12 month rolling average basis); and

   b. 15 tons VOC (chloroform)/yr (calculated monthly on a 12 month rolling average basis).
   (9 VAC 5-80-110 and Condition #11 of 8/8/2003 Permit)

8. Emissions from the operation of the Nomex® plant processes (excluding finish on yarn as applied, polymer ingredients and the chloroform extraction system) shall not exceed the limitations specified below:

   a. 127.2 lbs VOC (dimethylacetamide)/hr (average hourly emissions calculated monthly on a 12 month rolling average basis); and

   b. 557.3 tons VOC (dimethylacetamide)/yr (calculated monthly on a 12 month rolling average basis).

   (9 VAC 5-80-110 and Condition #12 of 8/8/2003 Permit)

9. Emissions from the operation of the Nomex® plant processes (dimethylacetamide, chloroform, finish on yarn as applied, and polymer ingredients) shall not exceed the limitations specified below:

   573.3 tons VOC/yr (calculated monthly on a 12 month rolling average basis).
   (9 VAC 5-80-110 and Condition #13 of 8/8/2003 Permit)

10. The permittee shall control emissions of hazardous air pollutants from affected facilities in the Nomex® process area in compliance with the requirements of the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, 40 CFR 63 subpart FFFF.
    (9 VAC 5-80-110 and 40 CFR 63 subpart FFFF)

B. Monitoring

11. The scrubber required by Condition #1 shall be equipped with an exhaust gas flow meter, a scrubber liquid flow meter, a scrubber liquid DMAC concentration monitor and a device to continuously measure the differential pressure across the scrubber. The monitor, device and meters shall be installed in accessible locations and shall be maintained by the permittee such that they are in proper working order at all times (except for periods of required maintenance and calibration). The scrubber shall be provided with adequate access for inspection.
    (9 VAC 5-80-110 and Condition #3 of 8/8/2003 Permit)

12. The scrubber required by Condition #3 shall be equipped with a scrubber liquid temperature gauge and a scrubber spray flow meter. The gauge and flow meter shall be installed in accessible locations and shall be maintained by the permittee such that they are in proper working order at all times (except for periods of required maintenance and calibration). In addition, the scrubber spray liquid shall be sampled daily. These samples shall be analyzed daily for chloroform concentration except for instances of laboratory analysis unavailability. Samples obtained during instances of laboratory analysis unavailability shall be analyzed for chloroform concentration on the first date when laboratory analysis becomes available. The scrubber shall be provided with adequate access for inspection.
    (9 VAC 5-80-110 and Condition #5 of 8/8/2003 Permit)

13. Each nitrogen aspiration system (NOE 110 and 111) purge shall be equipped with a temperature gauge and a gas flow meter. The temperature gauges and flow meters shall be installed in accessible locations and shall be maintained by the permittee such that they are in proper working order at all times. The permittee shall monitor and record the data provided by the monitoring devices at least once per shift. These data shall be used to calculate the monthly and annual operating temperatures and nitrogen flows of NOE 110 and 111 as specified in

Condition #6.
(9 VAC 5-80-110 and Conditions #7 and #17 of 8/8/2003 Permit)

14. Initial performance tests shall be conducted for VOC on the inlet and outlet of the Nomex® DMAC scrubber (NOC 03) and the outlet of the Nomex® chloroform scrubber (NOC 02) to determine compliance with the control efficiency requirements of Conditions #1 and #3, respectively. Concurrently with the Nomex® chloroform scrubber (NOC 02) outlet testing, the permittee shall measure the amount of chloroform in the scrubber liquid purge flow. Initial performance tests shall be conducted for VOC on the 1st floor exhaust from spinning machines #1-#4 (NOE 15-18) to demonstrate compliance with the requirements of Condition #6. The tests shall be performed, and demonstrate compliance, no later than 60 days after completion of the Nomex® modification project (as defined in Condition #21) or one year from the date of this permit, whichever is later. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing.
(9 VAC 5-80-110 and Condition #14 of 8/8/2003 Permit)

15. During the initial performance test specified in Condition #14 for the Nomex® DMAC scrubber and the Nomex® chloroform scrubber, the facility shall periodically (at least once every 15 minutes) record the data provided by the NOC 03 scrubber liquid DMAC concentration monitor for the purpose of establishing an operating range for Condition #16.
(9 VAC 5-80-110 and Condition #15 of 8/8/2003 Permit)

16. Each monitoring device required by Condition #1 (scrubber liquid flow meter, scrubber liquid DMAC concentration monitor and a device to continuously measure differential pressure drop across the scrubber) and Condition #3 (scrubber spray liquid flow meter, scrubber liquid temperature gauge and scrubber spray liquid sample for chloroform concentration analysis) shall be observed by the permittee with a frequency of not less than once per shift, except for the once per day NOC 02 chloroform concentration analysis. The permittee shall keep a log of the observations. For NOC 02, for any such observation that reveals a scrubber spray flow less than 5 gpm, a scrubber spray chloroform concentration of greater than 10% or a spray temperature higher than 35 degrees Celsius, the permittee shall take corrective action to return NOC 02 to normal operation (within one hour) for the applicable monitored parameter, or provide stacktesting data certifying that the operation of the control device at the out-of-range level is consistent with the control efficiency demonstrated during the initial performance test. For NOC 03, for any such observation that reveals a scrubber liquid flow less than 1800 gpm, or a scrubber liquid DMAC concentration outside of the range established during the initial performance test required by Condition #14, the permittee shall take corrective action to return NOC 03 to normal operation (within one hour) for the applicable monitored parameter, or provide stacktesting data certifying that the operation of the control device at the out-of-range level is consistent with the control efficiency demonstrated during the initial performance test.
(9 VAC 5-80-110 and Condition #16 of 8/8/2003 Permit)

17. The facility shall examine on a once-per-shift basis the pressure balance condition of each operating spin cell. If necessary, the pressure balance of each operating cell shall be adjusted to a level consistent with Condition #2.a. The facility shall maintain a log documenting that the required examinations have been conducted for each shift. The requirements of this condition and Condition #2 shall be incorporated into the written operating procedures and

operator training required by Condition #75.
(9 VAC 5-80-110 and Condition #18 of 8/8/2003 Permit)

18. The permittee shall monitor compliance with the requirements of the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing in accordance with the provisions of 40 CFR 63 subpart FFFF.
(9 VAC 5-80-110 and 40 CFR 63 subpart FFFF)

C. Recordkeeping

19. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

    a. Records supporting all calculations required by 40 CFR 60 Subpart HHH as applied to the Nomex® process area. Monthly calculations shall be performed using the procedures specified in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) in calculating solvent feed, emissions and efficiencies.

    b. Monthly calculations of average hourly and annual VOC emissions as required by Conditions #7, #8 and #9 (annual only), including all documentation necessary to support these calculations.

    c. Records (log) of the control device monitoring device observations required by Condition #16, as well as any corrective actions taken as a result of these observations.

    d. Records of the data and calculations demonstrating compliance with the nitrogen purge system operating limits of Condition #6.

    e. Records (log) of the once/shift spin cell pressure balance examinations required by Condition #17.

    f. Records demonstrating compliance with the LDAR program specified in Condition #4.

    g. A maintenance schedule for all process equipment and air pollution control equipment.

    h. Operator training records.

    i. Written operating procedures for all process equipment and air pollution control equipment.

    j. Records specified in 40 CFR 63.2525 and 40 CFR 63 Subpart A.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9 VAC 5-80-110, 40 CFR 63 Subparts A and FFFF, and Conditions #9 and #23 of 8/8/2003 Permit)

D. Reporting

20. The permittee shall furnish written notification to the Director, Piedmont Region of the anticipated date of performance tests listed in Condition #14 postmarked at least 30 days prior to such date. Four copies of the test results shall be submitted to the Director, Piedmont Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110 and Conditions #14 and #20 of 8/8/2003 Permit)

21. The permittee shall submit quarterly project reports to the Piedmont Regional Office within 30 days after the end of each calendar quarter. Each quarterly report and the final quarterly report (the report submitted within 30 days after the end of the calendar quarter in which the all projects are completed) shall contain the following information:

    a. A list of each project identified by the permittee at the time of the report which is planned in order to reach the production capacities stated in the permit application, as amended.

    b. For each listed project, the general Nomex® process area (spinning, etc.) affected, and the specific equipment involved.

    c. For each listed project, a brief description of how each project will contribute to its respective general process area (spinning, etc.) achieving the stated operational capacity for that area.

    d. The current status of the project: Not begun, Under Construction or Completed.

    e. For projects which have not begun construction/implementation, the estimated start date.

    f. For projects which are being implemented/constructed as of the date of the report, the estimated project completion date.

    g. For projects which have already been implemented/completed, the actual implementation/completion date.

    h. An estimate of the final capacity of each modified Nomex® process area (spinning, etc.) taking into account all completed projects.

    (9 VAC 5-80-110 and Condition #22 of 8/8/2003 Permit)

22. The permittee shall make the notifications required in 40 CFR 63.2515 and 40 CFR 63 Subpart A and the reports required in 40 CFR 63.2520 and 40 CFR 63 Subpart A.
(9 VAC 5-80-110 and 40 CFR 63 Subparts A and FFFF)

IV. Kevlar® Process Area

A. Limitations

23. Volatile Organic Compound emissions from the following equipment shall be controlled by the Kevlar® Chloroform Scrubber (SCD 01):

    SEE 31 - Extraction Column
    SEE 32 - Stripper Column
    SEE 34 – Chloroform Column
    SET 01 – Chloroform Storage Tank

    The scrubber shall be provided with adequate access for inspection and shall be in operation when any of the equipment specified in this condition is operating.
    (9 VAC 5-80-110 and Condition #3 of 1/16/2002 Permit)

24. Fugitive VOC emissions from the Kevlar® solvent recovery area equipment shall be controlled by a leak detection and repair (LDAR) program in accordance with 40 CFR 60 Subpart VV, with the exception of the reporting requirements of 60.487. The covered equipment shall include all NMP and chloroform-containing vessels, equipment and lines that would be regulated by 40 CFR 60 Subpart VV if the facility were subject to Subpart VV. Note: The facility is not actually subject to 40 CFR 60 Subpart VV.
    (9 VAC 5-80-110 and Condition #6 of 1/16/2002 Permit)

25. The Kevlar® Cooling Tower Cells (SEE 36-38) shall operate no more than 8760 hours per year per cell, calculated monthly as the sum of each consecutive 12 month period.
    (9 VAC 5-80-110 and Condition #7 of 1/16/2002 Permit)

26. The amount of Volatile Organic Compounds introduced as make-up additives into Kevlar® Cooling Tower Cells (SEE 36-38) in the water treatment chemicals shall not exceed 4.6 tons per year as a combined total, calculated monthly as the sum of each consecutive 12 month period.
    (9 VAC 5-80-110 and Condition #8 of 1/16/2002 Permit)

27. The Kevlar® Spinning Operations (SEE 21-27) shall process no more than 449,800 Kevlar® Spinning Units per year, calculated monthly as the sum of each consecutive 12 month period.
    (9 VAC 5-80-110 and Condition #9 of 1/16/2002 Permit)

28. The Kevlar® Polymerization Dryer (SEE 04) shall process no more than 204,000 Kevlar® Polymerization Units per year, calculated monthly as the sum of each consecutive 12 month period.
    (9 VAC 5-80-110 and Condition #10 of 1/16/2002 Permit)

29. The S.M. Yarn Processor No. 5 (SEE 41) shall process no more than 21,539 Kevlar® Spinning Units per year, calculated monthly as the sum of each consecutive 12 month period.
    (9 VAC 5-80-110 and Condition #4 of 7/8/1987 Permit)

30. Volatile Organic Compound (n-methylpyrrolidone) emissions from Kevlar® polymerization and solvent recovery operations shall not exceed 17 pounds of VOC emissions per thousand pounds of solvent feed, calculated in accordance with the equations in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) and calculated monthly on a six month rolling average basis.
(9 VAC 5-80-110, Condition #E.7 of 1996 RACT Agreement and Condition #11 of 1/16/2002 Permit)

31. Emissions from the operation of the Kevlar® solvent recovery chloroform extraction system (SET 01, SEE 31-35) shall not exceed the limitations specified below:

    a. 3.8 lbs VOC per hour (average hourly emissions, as determined by a monthly chloroform material balance, calculated monthly on a 12 month rolling average basis); and

    b. 15 tons VOC per year (as determined by a monthly chloroform material balance, calculated monthly on a 12 month rolling average basis).

    (9 VAC 5-80-110 and Condition #13 of 1/16/2002 Permit)

32. Emissions from the operation of the Kevlar® plant processes (excluding finishing oils, polymer ingredients and the chloroform extraction system) shall not exceed the limitations specified below:

    a. 8.8 lbs VOC per hour (average hourly emissions, as determined by a monthly n-methylpyrrolidone material balance, calculated monthly on a 12 month rolling average basis); and

    b. 35.3 tons VOC per year (as determined by a monthly n-methylpyrrolidone material balance, calculated monthly on a 12 month rolling average basis).

    (9 VAC 5-80-110 and Condition #14 of 1/16/2002 Permit)

33. Emissions from the application of Kevlar® spinning finishing oils (SEE 21-27) shall not exceed the limitations specified below:

VOC	0.1 lbs/hr	0.5 tons/yr

    Compliance with these emission limits shall be determined as stated in Condition #27.
    (9 VAC 5-80-110 and Condition #15 of 1/16/2002 Permit)

34. Emissions from the operation of the Kevlar® polymer dryer (SEE 04) shall not exceed the limits specified below:

Particulate Matter	0.5 lbs/hr	2.0 tons/yr
PM10	0.2 lbs/hr	0.6 tons/yr

    Compliance with these emission limits shall be determined as stated in Condition #28.
    (9 VAC 5-80-110 and Condition #16 of 1/16/2002 Permit)

35. Emissions from the operation of the Kevlar® spinning interlace and winder equipment (SEE 21-27) shall not exceed the limits specified below:

Particulate Matter	0.8 lbs/hr	3.0 tons/yr
PM10	0.1 lbs/hr	0.4 tons/yr

Compliance with these emission limits shall be determined as stated in Condition #27.
(9 VAC 5-80-110 and Condition #17 of 1/16/2002 Permit)

36. Emissions from the operation of the Kevlar® Cooling Tower Cells (SEE 36-38) shall not exceed the limits specified below:

Particulate Matter	3.3 lbs/hr	14.5 tons/yr
PM10	3.3 lbs/hr	14.5 tons/yr
VOC	1.1 lbs/hr	4.6 tons/yr

Compliance with these emission limits shall be determined as stated in Conditions #25-26.
(9 VAC 5-80-110 and Condition #18 of 1/16/2002 Permit)

37. Emissions from the operation of the Kevlar® spinning equipment (SEE 21-27) shall not exceed the limits specified below:

Sulfuric Acid Mist	3.3 tons/yr

Compliance with these emission limits shall be determined as stated in Condition #27.
(9 VAC 5-80-110 and Condition #19 of 1/16/2002 Permit)

38. Emissions from the application of S.M. Yarn Processor No. 5 (SEE 41) shall not exceed the limitations specified below:

Particulate Matter	1.31 lbs/hr	1.85 tons/yr

Compliance with these emissions limits shall be determined by compliance with Condition #29.
(9 VAC 5-80-110 and Condition #5 of 7/8/1987 Permit)

39. The permittee shall control emissions of hazardous air pollutants from affected facilities in the Kevlar® process area in compliance with the requirements of the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, 40 CFR 63 subpart FFFF.
(9 VAC 5-80-110 and 40 CFR 63 subpart FFFF)

B. Monitoring

40. The scrubber required in Condition #23 shall be equipped with a scrubber spray flow meter. The flow meter shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times (except for periods of required maintenance and calibration).
(9 VAC 5-80-110 and Condition #3 of 1/16/2002 Permit)

41. The permittee shall monitor compliance with the requirements of the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing in accordance with the provisions of 40 CFR 63 subpart FFFF.
(9 VAC 5-80-110 and 40 CFR 63 subpart FFFF)

C. Recordkeeping

42. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

    a. Monthly calculations of VOC emissions as required by Conditions #31 and #32, as determined by material balances of chloroform and n-methylpyrrolidone respectively, including all documentation necessary to support these calculations. The monthly calculations required by Condition #30 shall be performed using the procedures specified in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) in calculating solvent feed, emissions and efficiencies.

    b. Records demonstrating compliance with the LDAR program specified in Condition #24.

    c. Monthly and annual throughputs/operating-hours of the materials/units listed in Conditions #25-29; annual throughputs/operating-hours shall be calculated monthly as the sum of each consecutive 12 month period.

    d. Monthly and annual calculations of sulfuric acid mist and finishing oil VOC emissions from the Kevlar Spinning operations (SEE21-27), including all documentation necessary to support these calculations. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

    e. A maintenance schedule for all process equipment and air pollution control equipment.

    f. Operator training records.

    g. Written operating procedures for all process equipment and air pollution control equipment.

    h. Records specified in 40 CFR 63.2525 and 40 CFR 63 Subpart A.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9 VAC 5-80-110, 40 CFR 63 Subparts A and FFFF, and Conditions #12 and #22 of 1/16/2002 Permit)

D. Reporting

43. The permittee shall make the notifications required in 40 CFR 63.2515 and 40 CFR 63 Subpart A and the reports required in 40 CFR 63.2520 and 40 CFR 63 Subpart A.
(9 VAC 5-80-110 and 40 CFR 63 Subparts A and FFFF)

V. Tyvek® Process Area (Lines 4 and 7)

A. Limitations

44. Volatile Organic Compound (VOC) emissions from each Tyvek® line (except for the air stripper and nitrogen stripper) shall be controlled primarily by condenser(s). The condenser(s) shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition #4 of 4/30/1997 Permit)

45. VOC emissions from noncondensible gases from the Tyvek® line condensers and, at a minimum, from the Tyvek® spin cell nitrogen stripper chambers shall be controlled by a VOC absorption system. The VOC absorption system shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition #5 of 4/30/1997 Permit)

46. VOC emissions from the Tyvek® line air strippers and the VOC absorption system exhaust shall be controlled by a heat regenerative incinerator. Supplemental fuel shall be combusted as necessary to maintain the required incinerator temperature as determined during performance testing. The heat regenerative incinerator shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition #6 of 4/30/1997 Permit)

47. The yearly production of Tyvek® shall not exceed 55,000 tons, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-110 and Condition #8 of 4/30/1997 Permit)

48. The Emissions from the operation of each Tyvek® line, including fugitive emissions, shall not exceed the limitations specified below:

Total Volatile Organic Compounds	13.8 lbs/hr	55.0 tons/yr

    The hourly limit shall be calculated monthly on a 12-month rolling average basis. The annual limit shall be calculated on a 12-month rolling average basis.
    9 VAC 5-80-110 and Condition #9 of 4/30/1997 Permit)

49. Visible emissions from the Tyvek® manufacturing lines and the heat regenerative incinerator shall not exceed 5 percent opacity.
(9 VAC 5-80-110 and Condition #10 of 4/30/1997 Permit)

50. The approved fuel for the heat regenerative incinerator is natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition #13 of 4/30/1997 Permit)

51. The permitted facility in the Tyvek® process area shall operate in compliance with 40 CFR 60.600 through 60.604 (NSPS Subpart HHH).
(9 VAC 5-80-110 and Condition #14 of 4/30/1997 Permit)

52. Although it is not directly applicable, the Tyvek® process area shall institute fugitive leak detection and repair procedures to correspond with the standards of 40 CFR 60 Subpart VV or equivalent.
(9 VAC 5-80-110 and Condition #15 of 4/30/1997 Permit)

B. Monitoring

53. Each emission unit subject to condition #49 shall be observed visually at least once each operating month for at least a brief time period to determine which emissions units have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
(9 VAC 5-80-110)

54. The control devices required by conditions #44, #45, and #46 shall be operated within the parameters ranges established during stack testing (e.g., heat regenerative incinerator inlet/outlet temperatures and gas flow rate). These control parameters shall remain consistent unless prior notification of a change is made to the Department.
(9 VAC 5-80-110 and Condition #19 of 4/30/1997 Permit)

55. The heat regenerative incinerator shall be equipped with a device to measure the incinerator chamber temperature. The heat regenerative ceramic shall be inspected and replaced as recommended by the manufacturer in order to insure its effectiveness. These recommendations shall be readily accessible or posted conspicuously.
(9 VAC 5-80-110 and Conditions #6 and #11 of 4/30/1997 Permit)

C. Recordkeeping

56. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

    a. The monthly and annual production of Tyvek®. Annual production shall be calculated monthly as the sum of each consecutive 12-month period.

    b. Recordkeeping in accordance with 40 CFR 60 Subpart VV (40 CFR 60.486) and as required by 40 CFR 60 Subpart HHH (including amounts of solvent feed, make-up solvent, polymer usage, and solvent-to-polymer ratio in the spinning solution); calculation of monthly VOC emissions for each line; and total VOC emissions for the last twelve month period for each line. 40 CFR 60.486 records shall be submitted to the Director, Piedmont Region upon request.

    c. The results of the monthly visible emission surveys required by Condition #49 and details of any corrective action taken as a result of these inspections.

    d. A maintenance schedule for all process equipment and air pollution control equipment.

e. Operator training records.

f. Written operating procedures for all process equipment and air pollution control equipment.

g. Control device operating parameters.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110 and Conditions #14, #15, and #23 of 4/30/1997 Permit)

D. Reporting

57. The permittee shall report the results of any 40 CFR Part 60 method 9 opacity test performed as a result of Condition #53 above. If the test indicates the facility is out of compliance with the standard contained in Condition #49, the source shall also report the length of time associated with any exceedance of the standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Director, Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Section XI, Condition E.
(9 VAC 5-80-110)

58. To demonstrate compliance with the requirement of Condition # 51, the permittee shall submit a semi-annual report of the previous 6-month rolling average solvent emissions. In addition, an annual report demonstrating annual compliance shall be compiled. The semi-annual and annual reports shall be sent to the Director, Piedmont Region.
(9 VAC 5-80-110 and Condition #14 of 4/30/1997 Permit)

59. The Tyvek® process area shall not be subject to the reporting requirements in 40 CFR 60.487 in 40 CFR 60 subpart VV.
(9 VAC 5-80-110 and Condition #15 of 4/30/1997 Permit)

VI. Zytel® Process Area

A. Limitations & Monitoring

60. Carbon Monoxide emissions from the Dowtherm Vaporizer VAP-3R shall not exceed the following work practice standard from 40 CFR 63.7500:

    - 400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average).

    (9 VAC 5-80-110 and 40 CFR 63.7500 of Subpart DDDDD)

61. The permittee shall develop and implement a written start-up, shutdown and malfunction (SSM) plan for the Dowtherm Vaporizer VAP-3R as specified in 40 CFR 63.6(e)(3). During periods of start-up, shutdown and malfunction, the permittee shall operate VAP-3R in accordance with the SSM plan as required in 40 CFR 63.7505.
    (9 VAC 5-80-110, 40 CFR 63.7505(e), 63.7540(c) and 63.6(e)(3))

62. The Dowtherm operations in the Zytel® process area shall institute fugitive leak detection and repair (LDAR) procedures to correspond with the standards of 40 CFR 60 Subpart VV except that equipment shall be considered to be leaking when a reading above 500 ppm of VOC (i.e., an action level of 500 ppm) is obtained using an approved measurement technique.
    (9 VAC 5-80-110 and Condition E.12 of 5/30/1996 RACT Agreement)

B. Testing and Recordkeeping

63. The permittee shall conduct performance testing as follows:

    a. Annual performance tests shall be conducted for Carbon Monoxide for the Dowtherm Vaporizer VAP-3R, using EPA Reference Method 10, 10A or 10B to determine compliance with the work practice standard in condition 60. The tests shall be performed, and demonstrate compliance annually, within 10-12 months of the previous performance test.
    (40 CFR 63.7515(e))

    b. During these tests, the permittee shall operate VAP-3R at the maximum normal operating load.
    (40 CFR 63.7520(d))

    c. As specified in 40 CFR 63.7(e)(3), the permittee shall conduct three (3) separate test runs for each performance test. Each test run shall last at least one (1) hour.
    (40 CFR 63.7520(f))

    d. Tests shall be conducted and reported and data reduced as set forth in 40 CFR 63.7 and the test methods and procedures listed above.
    (40 CFR 63.7520(a) and 63.7)

    e. A Notification of Intent to conduct a performance test and a site-specific test plan developed in accordance with 40 CFR 63.7(c) shall be submitted to the Director,

Piedmont Regional Office for approval at least sixty (60) calendar days before a performance test is scheduled to take place.
(40 CFR 63.7520(a), 63.7545(d) and 63.7(b-c))

f. Two copies of the test results shall be submitted to the Director, Piedmont Regional Office within sixty (60) days after test completion.
(40 CFR 63.7515(g))

(9 VAC 5-80-110 and 40 CFR 63 Subparts A and DDDDD)

64. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

VAP-3R MACT Subpart DDDDD Records

a. Copies of each notification and report that you submitted to comply with 40 CFR 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

b. For VAP-3R, records of performance tests or other compliance demonstrations as required in §63.10(b)(2)(viii).

c. The records in 40 CFR §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

RACT LDAR Records

d. Records shall be kept at the facility in accordance with 40 CFR 60.486 and shall be submitted to the Piedmont Regional Office upon request

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110, 40 CFR 63.7555(a)(1-3) and Condition #E.12 of 5/30/1996 RACT Agreement)

C. Reporting

65. The Dowtherm operations in the Zytel® process area shall not be subject to the reporting requirements in 40 CFR 60.487.
(9 VAC 5-80-110 and Condition E.12 of the 5/30/1996 RACT Agreement)

66. The permittee shall submit the following reports to demonstrate compliance with this permit. The content of and format of such reports shall be arranged with the Director, Piedmont Region. These reports shall include, but are not limited to:

a. Compliance Reports containing the information specified in 40 CFR 63.7550(c)(1-11) and 63.7550(d)(1-4) as applicable. These reports shall be submitted semiannually, no later than 30 days after the end of each 6-month period: July 31 for the January 1 to June 30 semi-annual period and January 31 for the July 1 to December 31 semi-annual period.

b. Immediate Start-up, Shutdown and Malfunction Reports containing the information specified in 40 CFR 63.10(d)(5)(ii) and the actions taken for the event. These reports shall be submitted if a SSM event occurs during the reporting period that is not consistent with the SSM plan and the source exceeds the work practice standard of condition 60. These reports shall be submitted within the timeframes specified in Table 9 of 40 CFR 63 Subpart DDDDD.

(9 VAC 5-80-110 and 40 CFR 63.7550)

VII. Storage Tanks

A. Limitations

67. VOC emissions from each PPD storage tank (SET 02 and 17) shall be controlled by a water-based scrubber (SCD 04 and SCD 05). The scrubbers shall be provided with adequate access for inspection and shall be in operation when the PPD storage tanks are in use.
(9 VAC 5-80-110 and Condition #4 of 1/16/2002 Permit)

68. VOC emissions from each TCL storage tank (SET 03 and 04) shall be controlled by an oil-based scrubber (SCD 02 and SCD 03). The scrubbers shall be provided with adequate access for inspection and shall be in operation when the TCL storage tanks are in use.
(9 VAC 5-80-110 and Condition #5 of 1/16/2002 Permit)

69. VOC emissions from the Tyvek® Line 4 and 7 spin agent storage tanks (TYT 01-03) shall be controlled by a vapor return line to supply trucks for filling losses. The tanks shall have normally closed vent valves to prevent breathing losses, in accordance with the National Fire Prevention Association (NFPA) Section 30.
(9 VAC 5-80-110 and Condition #7 of 4/30/1997 Permit)

70. The storage tanks listed in the table below are subject to the conditions of this section as specified below:

AREA	Tank ID#	Subject to Condition #71	Subject to Condition #72	Subject to Condition #75.d.
Nomex®	NOT 13	X	X	
Kevlar®	SET 01	X	X	
Tyvek®	TYT 01	X		
Tyvek®	TYT 02	X		
Tyvek®	TYT 03	X		
Zytel®	ZYT 01			X

(9 VAC 5-80-110)

71. Each storage tank indicated in Condition #70 shall be equipped with a control method that will remove, destroy or prevent the discharge into the atmosphere of at least 60% by weight of VOC emissions during the filling of such tank. The use of a submerged fill pipe shall be considered acceptable achievement of this standard.
(9 VAC 5-40-3430 B, 9 VAC 5-40-3440 B and 9 VAC 5-80-110)

72. Each storage tank indicated in Condition #70 shall be equipped with a control method that will remove, destroy or prevent the discharge into the atmosphere of at least 90% by weight of VOC emissions.
(9 VAC 5-40-3430 B, 9 VAC 5-40-3440 B and 9 VAC 5-80-110)

B. Monitoring and Recordkeeping

73. The permittee shall monitor operating parameters necessary to demonstrate compliance with the requirements in Condition #72.
(9 VAC 5-80-110)

74. A monthly inspection shall be conducted on each control device used to achieve compliance with condition #72 for any storage tank so indicated in condition #70. The inspection shall include both the structural integrity and the operating parameters of each control device.
(9 VAC 5-80-110 E)

C. Recordkeeping

75. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

    a. Certification of submerged fill pipe for each storage tank subject to Condition #71.

    b. Operating parameters of control devices used to meet the requirements of Condition #72.

    c. Records of the results of the monthly inspections required by Condition #74 and details of any corrective actions taken as a result of these inspections.

    d. For each storage tank indicated in Condition #70, the dimensions of each storage tank and an analysis showing the capacity of the storage tank.

    These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
    (9 VAC 5-80-110 E and 40 CFR 60.116b)

VIII. Facility Wide Conditions

A. Limitations (Condition 76 applies only to the Kevlar® and Zytel® process areas)

76. No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater that 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
    (9 VAC 5-80-110 and 9 VAC 5-50-80 of State Regulations,)

77. All fuel burning equipment shall meet applicable requirements in 9 VAC 5, Chapter 40, article 8.
    (9 VAC 5, Chapter 40, Article 8)

B. Monitoring

78. Each emission unit subject to condition #76, including but not limited to SEE04, SEE21-27 and SEE41, shall be observed visually at least once each operating month for at least a brief time period to determine which emissions units have normal visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having above-normal visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
    (9 VAC 5-80-110)

C. Recordkeeping and Reporting (Conditions 79 and 80 applies only to the Kevlar®, Nomex® and Tyvek® process areas)

79. The permittee shall have available written operating procedures for the related air pollution control equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of training.
    (9 VAC 5-80-110 of State Regulations, Condition #28 of the 4/30/1997 permit, Condition #28 of the 1/16/2002 permit and Condition #28 of the 8/8/2003 permit)

80. In order to minimize the duration and frequency of excess emissions, including visible emissions, due to malfunctions of process equipment or air pollution control equipment, the permittee shall:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

b. Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.

(9 VAC 5-80-110 of State Regulations, Condition #27 of the 4/30/1997 permit, Condition #28 of the 1/16/2002 permit and Condition #27 of the 8/8/2003 permit)

81. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

    a. Records necessary to demonstrate compliance with Condition #77.

    b. The results of the monthly visible emission surveys required by Condition #78 and details of any corrective action taken as a result of these inspections.

    These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
    (9 VAC 5-80-110 E and 40 CFR 60.116b)

82. The permittee shall report the results of any 40 CFR Part 60 method 9 opacity test performed as a result of Condition #78 above. If the test indicates the facility is out of compliance with the standard contained in Condition #76, the source shall also report the length of time associated with any exceedance of the standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Director, Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Section XI, Condition E.
    (9 VAC 5-80-110)

83. The permittee shall submit the results of demonstrations in which the 6-month average VOC control efficiency in any plant as specified in the 5/30/1996 RACT Agreement is not demonstrated. These reports shall be submitted at the end of each calendar quarter, however, if DuPont is successful in demonstrating compliance with the VOC control efficiency in each plant during a particular quarter, a report stating this shall be submitted to the Regional Director semiannually. Any such semiannual reports may be included in the reports required by Section XI, Condition #C.3
    (9 VAC 5-80-110 and Condition #E.4 of 5/30/1996 RACT Agreement)

D. Testing (Conditions 84 and 85 apply to the entire facility)

84. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.(9 VAC 5-50-30 and 9 VAC 5-80-110)

85. If compliance testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
PM/PM-10	EPA Method 5, 17
VOC/HAP	EPA Method 25A, 18
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

IX. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
	Two (2) Diesel-Driven Fire Pumps	9 VAC 5-80-720 A.26/A.27		370 HP
	One (1) Diesel-Driven Fire Pump	9 VAC 5-80-720 A.26/A.27		303 HP

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

X. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
None Identified		

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XI. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable. (9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration. The owner may submit a letter with appropriate updated application pages in place of the full application form stating what permit changes are requested. The owner shall submit additional information or a full application form if deemed necessary by the Department of Environmental Quality.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.

   (9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
   (9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

   b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

      (1) Exceedance of emissions limitations or operational restrictions;

      (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

      (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

   c. If there were no deviations from permit conditions during the time period, the permittee

shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31.

b. The identification of each term or condition of the permit that is the basis of the certification.

c. The compliance status.

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

f. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Piedmont Region within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XI.C.3. of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Piedmont Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Piedmont Region.
(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

4. The permittee shall furnish to the Board, within a reasonable time, any information that the

Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

5. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160).

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160).

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

a. A malfunction occurred and the permittee can identify the cause or causes of the

malfunction.

b. The permitted facility was at the time being properly operated.

c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

AA. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

BB. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)